PLANNING AHEAD

Notes for the Planning Community

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Notes from Jim Johnson

One of the most serious problems facing the Corps of Engineers today is our diminished planning capability. I have addressed this issue twice before, first as one of my priority objectives in October 1998, and second as a specific topic in July 1999. It will continue to be my primary concern and that of senior leaders throughout the Corps. We need strong planning capability in order to build and maintain our civil works program. It is that simple.

As many of you are aware, the Engineer Inspector General has been directed by the Chief to investigate the state of our planning capability, and how it is affecting our ability to build and maintain a strong civil works program. That investigation is scheduled to be completed shortly. It will provide an objective analysis of a situation that has concerned us, and we look forward to it with great anticipation. Even while that investigation and report are nearing completion, we are separately pursuing a set of specific actions to address the lack of planning capability in our organization. My highest priority in working with MSC planning chiefs at our February meeting will be to develop a corporate action plan for hiring, training, developing and retaining planners.

Within the general area of planning capability, it is essential that we have strong planning leadership. I have strongly stressed the importance of planning organizations and planning chiefs, and their essential role in building planning and civil works programs. Despite a few problematic exceptions, I am encouraged that the important role of district and division planning chiefs is now being recognized to a greater extent throughout the Corps.

Over the past year or so, several planning chief positions have become vacant throughout the Corps, and commanders have put a great deal of effort into searching for new planning chiefs. Unfortunately, the number of highly qualified applicants for these positions has been very limited. I'm not sure whether this is a result of the lack of a large pool of candidates, lack of interest, or lack of publicity.

Therefore, I have created a special section in *Planning Ahead* to highlight vacancy announcements for senior planning positions, especially planning chief positions. I encourage all divisions and districts to place senior planner position announcements in *Planning Ahead* to give them greater visibility. I also strongly encourage Headquarters, Division and District planners to apply for these positions. Unfortunately, many of our bright, capable planners have not applied for recent planning chief vacancies – positions for which many of them are well qualified.

We cannot hope to revitalize the civil works program, and specifically the planning program, without strong planning leadership. Filling senior planning positions with our best and brightest is essential to building a cadre of planning leaders for the future. Forget all the rumors and anecdotes that cause you not to apply for senior planning positions because you "know" you won't be selected. If you don't apply and compete for these positions, you only have **yourself** to fault. 🕮

Senior Planning Vacancies

Southwestern Division

The Southwestern Division is recruiting for the Chief, Planning Division, Directorate of Engineering and Technical Services (DETS) (GS-15), with major responsibility for water resource development planning in five districts and eight southwestern states, and for assuring quality of District planning products. Provides staff supervision on the Quality Assurance (QA) process and activities related to the Districts quality control plans to ensure proper project formulation, evaluation, and environmental aspects of the Districts Civil Works planning reports and other decision documents. Participates annually with the Chief of Planning, and the Chief of Policy, HQUSACE, and other Division Chiefs to determine effect of changing policy, and to set long-term goals. Participates in technical review strategy sessions with the Districts and higher authority such as In-progress Reviews, Reconnaissance Reviews, Feasibility Review Conferences, and other reviews as required to monitor the QA process.

The job closes on **9 February 2000**. You can find the entire announcement at http://cpol.army.mil/va/scripts/get_va.cgi?Announce_No=110707GJ0

Louisville District

As Chief, Planning Branch, Planning, Programs and Project Management Division (GS-14) serves as the principal technical advisor to the Deputy for Program and Project Management (DPM), other District organizations, public and private interests and higher authority on all aspects of the District planning mission including conservation and development of water and land resources, environmental issues and policy matters, and flood plain management services. Exercises broad overall management and direction of Planning Branch work, programs, and functions. Provides advice and recommendations to the DPM concerning planning programs and major studies. Directs the conduct of studies leading to reconnaissance reports and feasibility reports for Congressional authorization of Civil Works projects for navigation, flood control, storm damage prevention, environmental restoration, recreation, hydropower, and other water resources development and conservation needs. Oversees the development of the scope, level, and degree of technical analysis to be employed in planning studies necessary to obtain quality results within cost and schedule as documented in the Management Plan.

The job number is 00A0454JT that closes on **11 February 2000**. You can find the entire announcement at http://www.cpol.army.mil/va/scripts/public.html. Use the job number to call up all the specifics on this job.

Vicksburg District

Vicksburg District is recruiting for the Chief of the Environmental and Economic Analysis Branch (EEAB) (GS–14) in the Planning, Programs and Project Management Division with the responsibility for planning, organizing, coordinating, directing, controlling, and reviewing the formulation and development of both long-range and project plans covering both the environmental and-economic aspects of existing and proposed Civil Works projects throughout the three state geographic area of the Vicksburg District (MVK).

The job number is 00C0439CT that closes on **24 February 2000**. You can find the entire announcement at http://www.cpol.army.mil/va/scripts/public.html. Use the job number to call up all the specifics on this job.

We encourage you to send us your announcements for senior planning positions, and especially planning chief positions, so that we can use this special section of *Planning Ahead* to give these positions high visibility.

Regulations - On the Web!

Ellen Cummings - CECW-PD

Most of you know that all the Corps regulations are now published on the Web. Not all of you may know that notices are sent out each time a new regulation is published because not all of us are on the mailing list. So you need to get in the habit of checking the web site periodically to see what is new. You can click on http://www.usace.army.mil/inet/usace-docs/ to get to the main page and then the "What's New" link to keep track of the new publications.

Coastal America Corporate Wetlands Restoration Partnership

Norm Edwards – CECW-PF

In 1994 the Coastal America partners signed a resolution with the Commonwealth of Massachusetts to restore wetlands and other aquatic ecosystems throughout Massachusetts that has resulted in more than $3 million in federal support for the Commonwealth's restoration efforts.

Recognition of the need for cost-share funds to match federal and state monies resulted in the evolution of the concept of a Corporate Wetlands Restoration Partnership (CWRP) for Massachusetts. In early 1999 an agreement was signed among federal, state and private organizations to work together, as partners, to achieve common goals through corporate partner contributions as well as federal and state cost share programs. The Massachusetts CWRP now has over 20 major corporations participating, and several major wetland restoration projects have been initiated as a result of the CWRP.

Recognizing the value of this unique public/private partnership, the corporations involved in the Massachusetts initiative proposed to take the concept nationwide, working through the Coastal America National Partnership with the Gillette Corporation facilitating the corporate participation. The Coastal America Principals approved the Coastal America Corporate Wetlands Restoration Partnership (CACWRP) concept at their December 8, 1999, Principals meeting.

Conceptually, private corporations that participate in the national program will donate funds for site-specific habitat restoration projects, or they may provide matching funds to a national or regional effort in support of habitat restoration. The projects that will receive funds from the CACWRP will all be approved Coastal America projects and, as such, will have federal programs involved to ensure their proper execution. An announcement is anticipated for late February or Early March 2000 to kick the program off.

CWRP may represent a valuable opportunity to accelerate the growth of the Corps civil works program, particularly through the environmental restoration mission, by providing local project cost sharing for some environmental activities of interest to us. Based upon the current corporate membership of the partnership (e.g., Gillette Corporation, Duke Energy), it is anticipated that expansion of the concept would be into the California and Florida areas initially. If, however, corporations local to Corps programs were to become aware of the opportunity to become involved, this would spur extension of the concept to those locations.

For details on how the program is being implemented in the northeast, please contact Mr. William Hubbard (CENAE-EP-EE). The HQ point of contact is Mr. Norman T. Edwards (CECW-PF). 🕮

The U.S. Waterway System – TRANSPORTATION FACTS

Arlene L.Dietz, Director, Navigation Data Center

The official USACE "The U.S. Waterway System – TRANSPORTATION FACTS" dated December 1999 was mailed the first week of January 2000 to all district/division/HQ/Lab/FOA offices. If your office would like large numbers of copies (over 1000) for public distribution contact the Navigation Data Center's Jay Wieriman at 504-862-1402. He can give you an estimate of the reproduction costs and assist in the process of transferring funds. In the meantime NDC can quickly assist you by loaning you a

modest number of copies from our stock. Hopefully this will serve both your most immediate needs and allow us to consolidate all other requests before reordering.

The contents of the FACTS are found at www.wrsc.usace.army.mil/ndc. Included are tables displaying total, foreign and domestic waterborne commerce by major commodity group for 1998; geographic distribution of activities; traffic by state and by major posts; facility distribution by region; distribution of 14 U.S. flag vessel groupings by age categories; and inland domestic traffic by waterway. In addition, the most popular "Did You Know?" sections have been augmented and updated with facts such as: "In 1998 6.6% of all U.S.waterborne commerce, by weight, was containerized (1.2% of domestic and 11.5% of foreign)". 🕮

Waterborne Commerce of the U.S.—How to Obtain CY1998 and FY1999 Data

David Penick, Director, Waterborne Commerce Statistics Center

Navigation Data Center's (NDC) Waterborne Commerce Statistics Center (WCSC) has posted the final copies of the CY98 Waterborne Commerce of the U.S. Volumes 1-4 on NDC's website for your use. We know many need these data for budget, appropriations, and WRDA testimony. The final CY98 detailed commodity flow data are available at WCSC. If you need CY 1998 figures for unpublished projects, you may obtain these by contacting Peggy Galliano at 504-862-1424. Copies of our CY1998 estimates package covering the 10-year period 1989-1998, by major inland waterway, by major commodity groupings are on the website if you need trend information. Higher level summaries are in the FACT card, and quarterly estimates for major waterways are also available. So, one should not assume that because the hard copy publications are not on your shelves that the data are not available. The major publications are on the web, and WCSC will provide additional detail upon request.

The good news for the year is, if you wish to have waterborne commerce quarterly estimates, by project, for the first two quarters of FY 1999, you can acquire this information from WCSC by contacting Tom Mire at 504-862-1410.

The assumption of the Foreign Waterborne Transportation Statistics Program and its reengineering has required some diversion of WCSC resources to the foreign program, resulting in some delays in producing the hard copies. We will continue to post estimates, preliminary statistics, and the latest products on the NDC web site (www.wrsc.usace.army.mil/ndc) to support you and the USACE navigation program in the most timely manner possible. 🕮

Summary of the Inland Waterways Users Board - Annual Report to Congress for 1999

Mark R. Pointon – IWR *Navigation Analysis Division*

At their meeting held on 3 November 1999, the members of the Inland Waterways Users Board unanimously approved their 1999 Annual Report to Congress which included a discussion of the status of the Nation's inland waterway infrastructure and a set of recommendations concerning current and future infrastructure investments.

The Inland Waterways Users Board (the Board) is an independent Federal advisory committee, established by the Water Resources Development Act of 1986 (WRDA 86), to advise the Administration, the Congress and the Federal government (primarily the U.S. Army Corps of Engineers) on project investments for inland and intracoastal waterways. The Board develops investment recommendations and submits an annual report, as stipulated in WRDA 86, to the Secretary of the Army and the Congress.

The development of Board investment recommendations was slowed some what in 1999 due to the time required in appointing new Board members. In order to submit a report to Congress as required by law, Board members W. Norbert Whitlock (appointed Chairman of the Users Board in 1999), James W. Keistler, Lisa L. Fleming and H. Don Boling formed the Board's Prioritization Working Group and provided the primary input and style for the 1999 annual report.

The focus of this year's report is the Board's concern that there currently is an inadequate level of Federal funding in support of water resource infrastructure development. The report points out that over the past five years, inland waterway infrastructure projects have averaged approximately $150 million in budget authority, half of which is cost shared from the Inland Waterways Trust Fund (IWTF). Further, the report indicates that revenues to the IWTF paid by commercial towing companies have exceeded outlays for the past several years. To meet the total capacity and condition needs of the system the Board believes that annual investment levels must be elevated to at least $300 million. With the balance of the IWTF approaching $400 million, it is the Board s opinion that the IWTF is being used as a tool to balance the Federal budget. (For an expanded discussion of the IWTF see David Grier's article in the September/October 1999 issue of *Planning Ahead.*)

The Board's annual report notes that several projects throughout the waterway system are badly deteriorated, most notably the ones on the Monongahela River (Locks and Dams 2, 3, and 4) and the Mississippi River Locks and Dams Nos. 24 and 25. Other facilities have severe capacity constraint problems. Approximately 50 percent of the locks on the inland system are over 50 years old. Many additional locks and dams were constructed in the 1960s and early 1970s and are now approaching between 30 and 40 years of service.

From the Board's perspective, the Nation needs to improve and modernize its navigation infrastructure to maintain the competitiveness of the U.S. in world export markets (for example: agriculture) and improve the efficiency of water transportation in support of domestic industries such as manufacturing, utilities, chemicals, and agriculture. Other countries, such as Argentina, Brazil, Paraguay and Bolivia, are actively working to improve the efficiency of their waterways. These nations see waterway transportation as an economic advantage. The Board maintains that it is critical for the United States to have a first class inland waterways system in order to be competitive in the global economy.

The following is a summary of the Board's investment recommendations, as contained in their 1999 annual report, listed in order of priority by project categories:

<u>Continuing Construction Projects</u>

- Olmsted Locks and Dam – Located on the Ohio River close to its juncture with the Mississippi River, the Board considers Olmsted a hub in a wheel of the inland waterway system. It will replace two projects that were built in the 1920s, both of which had temporary locks built in 1970 that were designed for eight to ten years of life that are still in operation.

- Inner Harbor Navigation Canal (IHNC) Lock - Located in New Orleans, this project will construct a lock, which will serve both shallow draft and deep draft vessel traffic in the New Orleans area. Although a replacement lock was first considered in the 1950's, funding to initiate construction was not appropriated until FY 1999.

- Monongahela River Locks and Dams Nos. 2, 3, and 4 – Located near Pittsburgh, these locks and dams are badly deteriorated. Construction of a new dam at Lock 2, removal of Locks and Dam 3 and new locks at Lock 4 will improve water transportation on the Mon and the Upper Ohio.

- McAlpine Locks and Dam - Located near Louisville, construction of a second 1,200-foot lock at McAlpine will improve waterborne transportation flow by reducing vessel congestion and eliminating navigation complexities.

- Marmet Locks and Dam - Located on the Kanawha River near Charleston, West Virginia, the project includes the construction of an 800' X 110' lock landward of the existing lock chambers. Some Board members made a case to rank Marmet higher in priority. Most traffic on the Kanawha River originates above Marmet, so when the new Winfield lock was put in service in 1997, the severe queue delays at Winfield moved to Marmet. In that sense, the Board believes this project should have been considered in a systems approach with Winfield and constructed concurrently.

- Kentucky Lock - Located on the Tennessee River, about 22 miles from the confluence with the Ohio River, the project includes the construction of a 1200' X 110' lock landward of the existing lock. A groundbreaking ceremony was conducted on November 19, 1999 at the site. This project has been somewhat controversial with the Board, but the Senators and Congressmen in that area felt a need and they authorized the project to move ahead.

- Robert C. Byrd Locks and Dam - Located on the Ohio River, 30 miles upstream of Huntington, West Virginia, the new locks (1200' X 110' main, 600' X 110' auxiliary) became operational in late 1992. The Board recommends completing the remaining work on the rehabilitation of existing dam in an expeditious manner to complete this project.

- Winfield Lock and Dam - Located on the Kanawha River about 31 miles above the confluence of the Ohio River, the project involved the construction of a 800' X 110' lock. The lock became operational in November 1997. The Board recommends completing the remaining work items in an expeditious manner to complete this project.

<u>Major Rehabilitation Projects</u>

In its annual report, the Board recommends that approximately $40 million a year is programmed for the major rehabilitation program. The projects identified in the Board's annual report included the following:

- Mississippi River Lock and Dam 24, Part 1 - Lock and Dam 24 is located at Mississippi River mile 273.5 above the confluence with the Ohio River, near the town of Clarksville, Missouri. The rehabilitation work includes replacing the miter gates and miter gate machinery, auxiliary lock closure structure, power distribution system, lock motors and control system, and other features, with a total project cost of $64 million. The Board strongly objects to the two-phase rehabilitation work for this facility. The Board recommends that the funds be utilized for construction of a new 1,200-foot lock with only minimal rehabilitation work to ensure adequate short-term lock serviceability.

- Mississippi River Lock and Dam 25 - Lock and Dam 25 is located at Mississippi River mile 241.1 above the confluence with the Ohio River, near the town of Winfield, Missouri. The Board recommends completing the project in an expeditious manner.

- Mississippi River Lock and Dam 3 - Lock and Dam 3 is located at Mississippi River mile 796.9 above the confluence with the Ohio River, near the town of Welch, Minnesota (about 56 miles downstream of Minneapolis). The Board recommends continued work on this project to prevent probable failure of the embankment system and loss of pool, which would result in a curtailment of navigation activity.

- Mississippi River Lock and Dam 14 - Lock and Dam 14 is located at Mississippi River mile 493.3 above the confluence with the Ohio River, near the city of LeClaire, Iowa. The Board recommends completing the project in an expeditious manner.

- Mississippi River Lock and Dam 24, Part 2. See entry for Mississippi River Lock and Dam, Part 1 above.

- London Locks and Dam - London Locks and Dam is located at Kanawha River mile 82.8 above the confluence with the Ohio River. The size of the lock chambers at London (360' X 56') restricts the use of modern, efficient towing equipment. The Board agrees with the findings of the study of the navigation facilities on the Kanawha that only a major rehabilitation project is necessary at London.

Studies and Future Projects

The Board's annual report discussed the following Corps' inland waterway navigation studies currently underway.

- Upper Mississippi River and Illinois Waterway Navigation Study - The Board recommends adequate funding to complete the study as soon as possible. The Board also recommends the Corps pursue authorization for construction of 1200-foot locks at Locks and Dams Nos. 25, 24, 22, 21 and 20 on the Mississippi River.

- Intracoastal Waterway Locks - The Board recommends the continuation of the feasibility study. The Board also recommends that improvements at Bayou Sorrel should be pursued as a new project. Bayou Sorrel would serve both navigation and flood control needs, and much of the cost of the new facility would be funded by flood control resources.

- Ohio River Mainstem Study - The Board recommends the continuation of this study to examine the additional lock capacity needs at several facilities on the Ohio River.

- Gulf Intracoastal Waterway - High Island to Brazos River, TX - The Board recommends the continuation of the feasibility study.

- Gulf Intracoastal Waterway - Brazos River to Port O'Connor, TX - The Board recommends the completion of the reconnaissance study and the initiation of the feasibility study in accordance with the study schedule.

- Gulf Intracoastal Waterway - Port O'Connor to Corpus Christi Bay, TX - The Board recommends the completion of the reconnaissance study and the initiation of the feasibility study in accordance with the study schedule.

- Kanawha River Navigation Study, West Virginia - The Board recommends the completion of the study in accordance with the study schedule.

- Green and Barren Rivers Navigation Disposition Study, Kentucky - The Board recommends the disposition study be completed as scheduled.

Individuals wishing to get a copy of the Board's Annual Report can contact Mr. Mark R. Pointon, Institute for Water Resources, Navigation Analysis Division, at (703) 428-6137 or can visit the Navigation Analysis Division's website at http://www.wrsc.usace.army.mil/iwr/ . 🕮

"New" Deep Draft Navigation Benefits

North Atlantic Division, ET-P

The North Atlantic Division, lead by Planning Division economists, have been investigating new Deep Draft Navigation benefit categories following a similar initiative recently undertaken for Inland Navigation. To date the Task Force, comprised of economists from the districts and division office of NAD, has had a series of informal and formal meetings, which has resulted in several new potential benefit categories. A brief paper, describing these benefits has recently been forwarded to HQUSACE (Policy and Planning) for review and comment. The categories include Saving In Trucking Cost, Reduction In Oil Spill Costs and Other Marine Casualties, Benefits Related To Removal Of Contaminants, Reduced Landside Costs, Saving U.S. Based Industries, And Unused Or Underutilized Facilities. In addition to the need to develop new benefit categories, the Task Force felt there exists a strong need to rewrite the existing procedures for conducting the economic analysis for Transportation Savings to Deep Draft Navigation, in order to make them more reflective of actual and anticipated shipping operations. (POC: Gary Hershdorfer, NAD Economics Team Leader, tel.: (718) 491-8720) 🕮

Inland Navigation Benefits Evaluation Initiative

Darlene Guinto, CEWRC

IWR and LRD jointly convened a workshop, 29-30 September, to resolve analytical and conceptual issues of inland navigation benefits evaluation. The idea for this workshop evolved out of issues raised by BG Van Winkle (DCGCW) and David B. Sanford, Jr. (CECW-A). A specific goal of the benefits evaluation initiative was to update the range of economic benefit categories, and more precisely and comprehensively measure the benefits of waterway improvement through a contemporary updating of the Principles and Guidelines (P&G) and procedures for benefit-cost analysis that serve as the basis for inland navigation studies conducted by the U.S. Army Corps of Engineers. The Proceedings of the Workshop are currently being completed, and will soon be made available for review.

Paul Hanley (CELRD) got the "ball rolling" by laying out the conceptual issues as part of a "white paper" that was distributed for review. IWR was contacted for assistance in organizing the workshop and providing technical input and expanding on the benefit categories suggested by Paul Hanley. Eugene Stakhiv coordinated IWR's role. He assigned each of the five topics for a detailed overview and evaluation by the best economists at IWR, as the basis for subsequent discussion by the

field representatives. The workshop included participants from HQUSACE and other Corps divisions and districts. The workshop is the culmination of extensive research and coordination among IWR staff and field representatives. It is the final step in the first phase of the development of policy guidance for future benefits evaluation of inland navigation studies. According to Mr. Sanford, this policy will also have implications for deep draft navigation studies, and there already is an effort underway by NAD to extend the concepts to those studies.

Field representatives presented several useful examples of current efforts to develop practical applications including proposals to estimate the impacts on inland navigation on overland modes of disruptions of the Emsworth, Dashields and Montgomery Locks, as well as the Chickamauga Lock. Additionally, an estimation of the quality of life impacts of the Ohio River Mainstem Study was recommended.

LRD originally proposed several categories for consideration: regional economic development (RED) benefits, overland congestion benefits, lock closure costs, water-compelled rates, and quality of life benefits. The group reached consensus that RED benefits evaluation improves decision-making, but are not, however, part of NED benefits calculations. Lock closure costs are currently measurable NED benefits and, as such, are and should be included in benefits evaluation. With respect to water-compelled rates, evaluation could be improved significantly from the development and application of a multi-market, multi-mode general equilibrium model. However, in the absence of such a model, the limited magnitude of NED benefits likely to be attributable to water-compelled rates would not justify independent development.

Issue papers for the benefit categories were presented by Dennis Robinson, Keith Hofseth, Dave Moser, Paul Scodari and Darlene Guinto, and Pat Mutschler of IWR, respectively. Case study discussions included presentations by field representatives or their consultants: George Antle on RED benefits evaluation; Larry Bray, TVA, on overland congestion; Michael Bronzini, George Mason University, on Industry Impacts of Lock Closures; Jim Fredericks, CEMVD, on water compelled rates; Mark Burton, Marshall University, and Marty Lipinski, University of Memphis, on Quality of Life Impacts. 🕮

The U.S. Cruise Ship Industry -Evaluation Of NED Benefits

Patricia L. Mutschler – IWR Navigation Analysis Division

In October 1999, the Institute for Water Resources published IWR Report - 99-R-8 entitled *The U.S. Cruise Industry – Evaluation of National Economic Development Benefits*. The purpose of this study, accomplished with support from Maritime Strategies International, Ltd. (MSI), was to evaluate the pertinent categories of NED benefits potentially available for cruise ships and the methods available to analyze those benefits. The study was prepared in response to Section 230 of WRDA 1996, which directed that the economic benefits from cruise ships be considered as commercial navigation benefits in evaluating potential improvements and operations and maintenance for USACE navigation projects. The report also provides a brief history of the cruise ship industry and the importance of the industry to deep draft navigation channel justification. The following is a summary of the report and presentation of its most salient findings.

At the time of the study, the world cruise ship fleet consisted of about 250 vessels. About 200 of those vessels were deep draft. In addition to these vessels, 37 deep draft vessels were on order. Of these

ships, 87 of the existing vessels and 24 of the vessels on order use (or will use) U.S. ports. The existing and on order ships were jointly analyzed, for a total of 111 deep draft cruise ships in the U.S. fleet, and 242 deep draft cruise ships in the world fleet.

Vessel sizes and the number of people taking cruises have been steadily increasing since the 1980's when the cruise industry began a shipbuilding spree. Most vessels constructed before 1980 were less than 40,000 gross tons (GT). The largest cruise ship currently in the fleet is 109,000 GT with a capacity of 3,360 passengers. Even larger vessels are currently on order. The annual passenger growth rate equaled almost 8 percent from 1980 to 1997 while passenger capacity increased 7 percent. Between 1997 and 2002, passenger capacity is projected to increase 8.1 percent per year.

A typical cruise ship is 70,000 GT, drafts under 26 feet, and carries about 2,000 passengers. It is based in Southern Florida, and sails late every Saturday afternoon to the Caribbean, returning to its homeport on the following Saturday morning. The average fare for such a cruise is about $225 per person per passenger per day, although many passengers on a typical cruise will pay more. The fare includes nearly all the major services offered by the cruise ships, including shipboard accommodations, food and snacks, entertainment, activities and port charges. Airfare to and from the ship's homeport is often included in the cruise fare, and includes transportation and baggage handling between the airport and the ship. Aspects of cruise operations that can significantly affect National Economic Development (NED) benefits include itinerary planning and port selection, contingency planning, operating costs and revenue generation.

The study concluded that NED benefits associated with cruise ships from navigation improvements could come from three sources: 1) existing vessels using a harbor under without-project conditions operate more efficiently in that same harbor under with-project conditions; 2) vessels using one harbor under without-project conditions transfer to the improved harbor under with-project conditions; and 3) new vessels (larger, with more amenities) begin using a harbor under with-project conditions that they did not use under without-project conditions. NED benefits could accrue to both vessel operators and passengers under each of the three scenarios. Benefits accruing to both operators and passengers are categorized as commercial navigation benefits.

Potential benefits to operators could accrue from decreases in vessel operating costs, landside costs (meals, hotels, transportation, staff) and/or payments to passengers (refunds and/or free cruises). Benefits resulting from decreases in costs can be calculated using standard techniques from the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G).* The calculation of benefits resulting from decreases in payments to passengers should be coordinated with CECW-PD. Operators could also experience increases in producer surplus (profits) from higher fares, new users, and/or higher onboard revenue. Producer surplus benefits can be determined by calculating the additional profits gained under with-project conditions.

Potential benefits to passengers could accrue from changes in the value of the recreational experience. The value of the experience could increase as a result of a reduction in canceled port calls and shore excursions, the routing of cruise vessels through with-project condition ports, or the use of newer, larger vessels with more amenities than the older, smaller ships. Changes in the value of the experience should be calculated using the contingent value method or conjoint analysis. Passengers could also experience decreases in the opportunity costs of time and out-of-pocket costs incurred due to delays or changes in the costs of transportation to and from the port. Standard techniques can be used to calculate benefits from decreases in the opportunity costs of time and out-of-pocket costs for passengers.

The most significant conclusion of this study is the finding that methods and procedures for evaluating the NED effects of USACE improvements on cruise ships encompass economic benefits to

both vessel operators and passengers. These findings have led to the inclusion of NED effects from cruise ships as commercial navigation benefits.

However, the study also concluded that most USACE navigation improvements are not likely to result in significant benefits to the cruise industry. This is because cruise ship operators do not currently experience significant operating inefficiencies or severe service disruptions at most U.S. ports. When disruptions have occurred, they were usually not caused by constrained Federal channels. This is because cruise vessels have shallower drafts than most similarly sized commercial freight vessels, and their maneuverability makes them less sensitive than other vessel types to channel width and turning basin size constraints. However, as the size of cruise ships further increase, the width of Federal channels and turning basins may become constraints in some ports.

If you would like more information on this topic, or would like to read the report, it can be found on the IWR web page at: www.wrsc.usace.army.mil/iwr. 🕮

A New Partnership For the Corps: The National Fish and Wildlife Foundation - Case Study #2: Quaker Neck Dam Removal, NC

Cheree Peterson - National Fish and Wildlife Foundation

The National Fish and Wildlife Foundation (Foundation) is excited by the possibilities of working with the U.S. Army Corps of Engineers' (Corps) as the Corps fulfills its environmental mission. Since the Corps has a variety of authorities that coincide with the Foundation's mission of conserving fish, wildlife, and plants, the Foundation hopes to support the Corps' restoration work (please see previous newsletter for background on the Foundation).

One partnership the Foundation would like to develop further with the Corps is partnering with the Corps and a local sponsor to perform small, low-head dam removal or to create fish passages over existing dams. The Foundation recently created a program to target the removal of low-head dams that are unsafe, under-functioning, or who's purpose is no longer relevant. Called the Dams and Rivers Program, the program funded five such projects in the first half of FY2000 and plans to fund several more in the second half of FY2000. Despite the newness of the program, the Foundation funded over thirty fish passage and dam removal projects over the past several years. Not surprisingly, the Foundation funded several dam removals with local groups that the Corps also participated in, and the Foundation would like to pursue this type of partnership.

One exemplary dam removal project that both the Foundation and the Corps played vital roles in was the removal of Quaker Neck Dam on the Neuse River in North Carolina. The Quaker Neck Dam blocked fish passage for herring, shad, and striped bass, and removing the dam opened up 139 miles of spawning habitat. North Carolina Power and Light owned the dam and would not allow removal unless an alternative source of water could be found. The Corps' Wilmington District played a key role by developing, at the request of the US Fish and Wildlife Service, a unique mechanism to deliver water to Power and Light that would not be a barrier to fish. Without the Corps' expertise, the dam never would have been removed. The Foundation played an essential role by providing $97,000 to the North Carolina Coastal Federation to fund demolition of the dam. This $97,000 was matched in third party, non-federal funds by the North Carolina Fisheries Commission. Along with the hard work of other partners, such as the US Fish and Wildlife Service, the dam removal began on December17, 1997 and concluded in September of 1998.

While the Foundation and the Corps did not work directly with each other on this removal, both played crucial roles that made the removal possible. The Foundation would like to explore this type of partnership with the Corps through the Dams and Rivers Program. We believe the Corps' expertise can be of chief importance in small, low-head dam removal, and would like to engage this expertise wherever possible. POC: Cheree Peterson - National Fish and Wildlife Foundation peterson@nfwf.org 🕮

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Submissions Deadline

The deadline for material for the next issue is **25 February 2000**. 🕮

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